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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/799,934

03/12/2004

Mark Kelly

066692-0097

6830

41552 7590 06/22/2007

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EXAMINER

STEELE, AMBER D

ART UNIT

PAPER NUMBER

1639

MAIL DATE

DELIVERY MODE

06/22/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/799,934

Applicant(s)

KELLY ET AL.

Examiner

Amber D. Steele

Art Unit

1639

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-90 is/are pending in the application.
- 4a) Of the above claim(s) See Continuation Sheet is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 48-51, 54, 57, 59-61, 66-69, 72, 75, and 78-80 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☒ Other: Notice to Comply

Continuation of Disposition of Claims: Claims withdrawn from consideration are 1-47,52,53,55,56,58,60-65,70,71,73,74,76,77 and 81-90.

DETAILED ACTION

Status of the Claims

1. The amendment to the claims received on February 28, 2007 added status identifiers only.

Claims 1-90 are currently pending.

Claims 48-51, 54, 57, 59-61, 66-69, 72, 75, and 78-80 are currently under consideration.

Election/Restrictions

2. Applicant's election with traverse of Group VII (claims 66-81) in the reply filed on February 28, 2007 is acknowledged. The traversal is on the ground(s) that Groups VI and VII should be rejoined because a serious search burden does not exist. This is found persuasive thus the inventions of Groups VI (claims 48-62) and VII (claims 66-81) are rejoined and the restriction between Groups VI and VII is withdrawn.

3. Applicant's election of Group VII/Group VI in the reply filed on February 28, 2007 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement (i.e. only the restriction between Groups VI and VII was traversed), the election has been treated as an election without traverse (MPEP § 818.03(a)).

4. Claims 1-47, 63-65, and 82-90 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected inventions, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on February 28, 2007.

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5. Applicant's election of a singular antenna moiety as the species of antenna moiety, competitive binding as the species of identification, and 2D NOESY as the species of NOESY in the reply filed on February 28, 2007 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

6. Claims 52-53, 55-56, 58, 70-71, 73-74, 76-77, and 81 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on February 28, 2007.

Priority

7. The present application claims the benefit of U.S. provisional application 60/455,610 filed March 13, 2003.

Information Disclosure Statement

8. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Specification

9. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Sequence Compliance

10. The sequence rules embrace all unbranched nucleotide sequences with ten or more bases and all unbranched, non-D amino acid sequences with four or more amino acids, provided that there are at least 4 "specifically defined" nucleotides or amino acids. The rules apply to all sequences in a given application, whether claimed or not. All such sequences are relevant for the purposes of building a comprehensive database and properly assessing prior art. It is therefore essential that all sequences, whether only disclosed or also claimed, be included in the database. Please refer to MPEP § 2421.02 and 37 CFR 1.821. The present specification contains amino acid sequences that are encompassed by the sequence rules (please refer to paragraphs 84 and 184; SEQ ID NO: 1, GXGGXXXG; KXEX₆SXXKX₅₋₆M, PXNPTG). Applicants are required to submit a sequence listing in both paper and CRF form and a letter stating that the paper copy and the CRF are the same. In addition, applicants are requested to carefully review the specification for any additional sequences.

Claim Objections

11. Claims 48-51, 54, 57, and 59-61 are objected to because of the following informalities: the phrase "detecting a subset of magnetization transfer signals between antenna moiety of the ligand-probe and the second ligand in the bound, wherein" is grammatically improper. "[I]n the bound complex" is suggested. Appropriate correction is required.

Invention as claimed

12. A method for obtaining a “focused” library of candidate binding compounds for a protein family, wherein the members of the protein family bind a common ligand, comprising the steps of: (a) providing a ligand-probe having an antenna moiety, wherein the ligand-probe binds to the common ligand binding site of a protein, wherein the protein is a member of the protein family; (b/c) providing a sample or plurality thereof comprising the protein, the ligand-probe, and a second ligand under conditions wherein the ligand-probe, the second ligand, and the protein form a bound complex; (c/d) detecting/assaying a subset of magnetization transfer signals (from the second ligands) between the antenna moiety of the ligand-probe and the second ligand in the bound complex, wherein said signals are obtained from an isotope-edited NOESY spectrum of said sample, thereby determining that the antenna moiety and the second ligand are proximal in the bound complex; and (d/e) obtaining a population of candidate binding compounds comprising the ligand-probe or a fragment thereof linked to one of a plurality of second ligand homologs whereby the population contains binding compounds that bind to members of the protein family and variations thereof.

Claim Rejections - 35 USC § 112

13. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

14. Claims 48-51, 54, 57, 59-61, 66-69, 72, 75, and 78-80 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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A. Claim 48 recites the limitation "second ligand homologs" in lines 2-3 of method step (d) and claims 50-51, 68-69. There is insufficient antecedent basis for this limitation in the claim.

B. Claim 66 recites the limitation "homologs" in line 2 of method step (e). There is insufficient antecedent basis for this limitation in the claim.

C. The term "fragment" in claims 48, 50, 66, 68 is a relative term which renders the claim indefinite. The term "fragment" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. For example, can a fragment be 1, 2, 4, 8, etc. amino acids of the ligand-probe; can the fragment be 10%, 20%, 40%, 80% homologous to the ligand-probe, etc.?

D. The term "homolog" in claims 48, 50-51, 66, 68-69 is a relative term which renders the claim indefinite. The term "homolog" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. For example, is a homolog a homolog of the original second ligand utilized in the method, is a second ligand homolog a homolog because it binds to the same ligand as the members of the protein family, is similar binding sufficient to be considered a homolog and if so what is the minimum binding necessary to be considered a homolog (e.g. kD value), is a certain amount of homology necessary to be considered a homolog and if so what percentage is necessary (e.g. 95%, 90%, 80%, etc?), is homology in a certain domain/region necessary, etc.?

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E. The term "isotope-edited" pertaining to NOESY in claims 48 and 66 is a relative term which renders the claim indefinite. The term "isotope-edited" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. For example, does simply utilizing an isotope in the NOESY assay render the assay "isotope-edited", is an isotope control utilized to reduce the signal to noise ratio and thus provide "isotope editing", are some isotopes not utilized in the NOESY assay and thus "isotope-edited", etc.?

F. The term "linked" or "linkage" in claims 48, 50, 51, 66, 68, and 69 is a relative term which renders the claim indefinite. The term "linked" or "linkage" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. For example, does linked or linkage mean a bond is formed and if so covalent or noncovalent, does linked or linkage include "in proximity", can the enzyme link the molecules (e.g. CL and SL linked because both bound to enzyme), etc.?

Claim Rejections - 35 USC § 102

15. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

16. Claims 48-51, 54, 57, 59-61, 66-69, 72, 75, and 78-80 are rejected under 35

U.S.C. 102(b) as being anticipated by Sem U.S. Patent 6,333,149 issued December 25, 2001.

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For present claims 48 and 66, Sem teaches methods for rapidly identifying drug candidates that bind an enzyme at both a common ligand site and a specificity ligand site wherein the drug candidates are screened from a focused combinatorial library comprising (a) providing a CL or common ligand attached to an isotope or antenna moiety, (b) providing a sample or a library of samples comprising an enzyme or protein, CL/isotope, and a mimic and/or SL (i.e. second ligand and/or homolog) that can form a binary and/or ternary complex, (c) utilizing NMR and thus the magnetization of NMR including NOESY to obtain signals and spectrum to determine the proximity of the CL, SL, mimic, and/or enzyme, (d) obtaining a library of mimics linked to CL (please refer to the entire specification particularly abstract; Figures 1A-7B; columns 1-13; Examples; claims).

For present claims 49 and 67, Sem teaches CL or common ligand including NADH or NADD (i.e. ligand-probe) attached to an isotope or with a hydrogen to deuterium substitution (i.e. antenna moiety; please refer to the entire specification particularly column 16, lines 51-65).

For present claims 50 and 68, Sem teaches obtaining a library of binary and/or ternary complexes including CL or common ligand linked to a mimic or second ligand homolog (please refer to the entire specification particularly Figures 1A, 1B, 2A, 2B, 3A, 3B, 3C, 4B, 5A, 5B, 5C, 5D; columns 7-8, 10-11, 16).

For present claims 51 and 69, Sem teaches potential linkages between the isotope or antenna moiety and the mimic or second ligand homolog (please refer to the entire specification particularly Figures; columns 7, 10).

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For present claims 54 and 72, Sem teaches competitive binding (please refer to the entire specification particularly columns 7-8 particularly the paragraph spanning the columns; column 15, lines 30-49; column 17, lines 37-54).

For present claims 57 and 75, Sem teaches deuterium isotopes (please refer to the entire specification particularly column 3, lines 22-28; column 6, lines 66-67; column 7, lines 1-8; column 8, lines 20-44; columns 9-10, 16).

For present claims 59-60 and 78-79, Sem teaches identifying the atom of the isotope proximal to the atom of the mimic or SL/specificity ligand site and also determining the distance (i.e. second ligand; please refer to the entire specification particularly columns 7-11).

For present claims 61 and 80, Sem teaches 2D NOESY (please refer to the entire specification particularly column 3, lines 22-46; column 9).

Double Patenting

17. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

18. Claims 48-51, 54, 57, 59-61, 66-69, 72, 75, and 78-80 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-33 of U.S. Patent No. 6,333,149. Although the conflicting claims are not identical, they are not patentably distinct from each other because both the presently claimed method and the method of U.S. Patent 6,333,149 comprise identifying homologs/mimics of proteins/enzymes.

For present claims 48 and 66, U.S. Patent 6,333,149 claims methods comprising (a) providing a CL (i.e. ligand-probe) with an atom (i.e. antenna) and an enzyme (i.e. protein), (b) providing a CL mimic and/or a SL (i.e. second ligand), (c) performing NMR (i.e. magnetization transfer signals between atoms to determine proximity) including NOESY, (d) identifying the CL mimic thus obtaining candidate binding compounds (please refer to claims 1-4 and 29).

For present claims 49 and 67, U.S. Patent 6,333,149 claims an atom of the CL (i.e. antenna attached to the common ligand; please refer to claims 1-4, 20, 22).

For present claims 50 and 68, U.S. Patent 6,333,149 claims CL linked or in proximity to SL or CL mimic (i.e. second ligand; please refer to claims 1-4, 14, 21).

For present claims 51 and 69, U.S. Patent 6,333,149 claims proximity (i.e. linkage) between CL atoms and CL mimic atoms or SL atoms (please refer to claims 1-4, 14, 21).

For present claims 54 and 72, U.S. Patent 6,333,149 claims competitive binding (please refer to claims 1-4).

For present claims 57 and 75, U.S. Patent 6,333,149 claims deuterium (please refer to claim 31).

For present claims 59-60 and 78-79, U.S. Patent 6,333,149 claims identifying atoms and distance via Angstroms (please refer to claims 1-4 and 32-33).

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For present claims 61 and 80, U.S. Patent 6,333,149 claims two dimensional NOESY wherein the two dimensional is produced via combining two one dimensional spectrums (please refer to claims 1-4 and 29).

19. Claims 48-51, 54, 57, 59-61, 66-69, 72, 75, and 78-80 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-62 of U.S. Patent No. 6,620,589. Although the conflicting claims are not identical, they are not patentably distinct from each other because both the presently claimed method and the method of U.S. Patent 6,620,589 comprise identifying homologs/mimics of proteins/enzymes.

For present claims 48 and 66, U.S. Patent 6,620,589 claims methods comprising (a) providing a CL (i.e. ligand-probe) with an atom (i.e. antenna) and an enzyme (i.e. protein), (b) providing a CL mimic and/or a SL (i.e. second ligand), (c) performing NMR (i.e. magnetization transfer signals between atoms to determine proximity) including NOESY, (d) identifying the CL mimic thus obtaining candidate binding compounds (please refer to claims 1-2, 8, 44, 47, 55-56, 59-62).

For present claims 49 and 67, U.S. Patent 6,620,589 claims an atom of the CL (i.e. antenna attached to the common ligand; please refer to claims 1-5, 8-12, 44, 55-56, 59-62).

For present claims 50 and 68, U.S. Patent 6,620,589 claims CL linked or in proximity to SL or CL mimic (i.e. second ligand; please refer to claims 1-5, 8-12, 55-56, 59-62).

For present claims 51 and 69, U.S. Patent 6,620,589 claims proximity (i.e. linkage) between CL atoms and CL mimic atoms or SL atoms (please refer to claims 1-5, 8-12, 55-56, 59-62).

For present claims 54 and 72, U.S. Patent 6,620,589 claims competitive binding (please refer to claims 1-2, 8, 55-56, 59-62).

For present claims 57 and 75, U.S. Patent 6,620,589 claims deuterium (please refer to claims 49, 51-52, 57).

For present claims 59-60 and 78-79, U.S. Patent 6,620,589 claims identifying atoms and distance via Angstroms (please refer to claims 1-2, 8, 44, 53-56, 59-62).

For present claims 61 and 80, U.S. Patent 6,620,589 claims two dimensional NOESY wherein the two dimensional is produced via combining two one dimensional spectrums (please refer to claims 1-2, 8, 44, 47, 55-56, 59-62).

20. Claims 48-51, 54, 57, 59-61, 66-69, 72, 75, and 78-80 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-160 of U.S. Patent No. 6,797,460. Although the conflicting claims are not identical, they are not patentably distinct from each other because both the presently claimed method and the method of U.S. Patent 6,797,460 comprise identifying homologs/mimics of proteins/enzymes.

For present claims 48 and 66, U.S. Patent 6,797,460 claims methods comprising (a) providing a CL (i.e. ligand-probe) with an atom (i.e. antenna) and an enzyme (i.e. protein), (b) providing a CL mimic and/or a SL (i.e. second ligand), (c) performing NMR (i.e. magnetization transfer signals between atoms to determine proximity) including NOESY, (d) identifying the CL mimic thus obtaining candidate binding compounds (please refer to claims 1, 33, 36, 41, 73, 76, 81, 113, 116, 121, 153, 156).

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For present claims 49 and 67, U.S. Patent 6,797,460 claims an atom of the CL (i.e. antenna attached to the common ligand; please refer to claims 1, 33, 36, 41, 73, 76, 81, 113, 116, 121, 153, 156).

For present claims 50 and 68, U.S. Patent 6,797,460 claims CL linked or in proximity to SL or CL mimic (i.e. second ligand; please refer to claims 1, 33, 36, 41, 73, 76, 81, 113, 116, 121, 146-148, 153, 156).

For present claims 51 and 69, U.S. Patent 6,797,460 claims proximity (i.e. linkage) between CL atoms and CL mimic atoms or SL atoms (please refer to claims 1, 33, 36, 41, 73, 76, 81, 113, 116, 121, 146-148, 153, 156).

For present claims 54 and 72, U.S. Patent 6,797,460 claims competitive binding (please refer to claims 1, 33, 36, 41, 73, 76, 81, 113, 116, 121, 153, 156).

For present claims 57 and 75, U.S. Patent 6,797,460 claims deuterium (please refer to claims 38, 78).

For present claims 59-60 and 78-79, U.S. Patent 6,797,460 claims identifying atoms and distance via Angstroms (please refer to claims 1, 33, 36, 39-41, 73, 76, 79-81, 113, 116, 119-121, 153, 156, 159-160).

For present claims 61 and 80, U.S. Patent 6,797,460 claims two dimensional NOESY wherein the two dimensional is produced via combining two one dimensional spectrums (please refer to claims 33, 35-36, 73, 76, 113, 116, 153, 156).

21. Claims 48-51, 54, 57, 59-61, 66-69, 72, 75, and 78-80 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 59-

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100 of copending Application No. 10/884,181. Please note: a notice of allowance was mailed for U.S. application 10/884,181 on March 14, 2007. Although the conflicting claims are not identical, they are not patentably distinct from each other because both the presently claimed method and the method of U.S. application 10/884,181 comprise identifying homologs/mimics of proteins/enzymes.

For present claims 48 and 66, U.S. application 10/884,181 claims methods comprising (a) providing a CL (i.e. ligand-probe) with an atom (i.e. antenna) and an enzyme (i.e. protein), (b) providing a CL mimic and/or a SL (i.e. second ligand), (c) performing NMR (i.e. magnetization transfer signals between atoms to determine proximity) including NOESY, (d) identifying the CL mimic thus obtaining candidate binding compounds (please refer to claims 59-61, 86-91, 93-96, 98-100).

For present claims 49 and 67, U.S. application 10/884,181 claims an atom of the CL (i.e. antenna attached to the common ligand; please refer to claims 59-61, 86-91, 93-96, 98-100).

For present claims 50 and 68, U.S. application 10/884,181 claims CL linked or in proximity to SL or CL mimic (i.e. second ligand; please refer to claims 59-61, 86-91, 93-96, 98-100).

For present claims 51 and 69, U.S. application 10/884,181 claims proximity (i.e. linkage) between CL atoms and CL mimic atoms or SL atoms (please refer to claims 59-61, 86-91, 93-96, 98-100).

For present claims 54 and 72, U.S. application 10/884,181 claims competitive binding (please refer to claims 59-61, 86-91, 93-96, 98-100).

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For present claims 57 and 75, U.S. application 10/884,181 claims deuterium (please refer to claim 98).

For present claims 59-60 and 78-79, U.S. application 10/884,181 claims identifying atoms and distance via Angstroms (please refer to claims 98-100).

For present claims 61 and 80, U.S. application 10/884,181 claims two dimensional NOESY wherein the two dimensional may be produced via combining two one dimensional spectrums (please refer to claims 59-61, 86-91, 93-96, 98-100).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Future Communications

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amber D. Steele whose telephone number is 571-272-5538. The examiner can normally be reached on Monday through Friday 9:00AM-5:00PM.

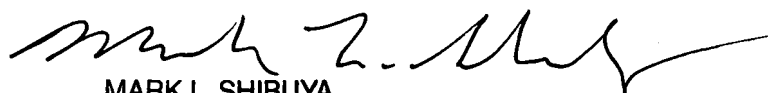
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doug Schultz can be reached on 571-272-0763. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ADS

June 13, 2007



MARK L. SHIBUYA
PRIMARY EXAMINER

Notice to Comply	Application No. 10/799,934	Applicant(s) KE LLY ET AL.	
	Examiner A. D. Steele	Art Unit 1639	

NOTICE TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS CONTAINING NUCLEOTIDE SEQUENCE AND/OR AMINO ACID SEQUENCE DISCLOSURES

Applicant must file the items indicated below within the time period set in the Office action to which the Notice is attached to avoid abandonment under 35 U.S.C. § 133 (extensions of time may be obtained under the provisions of 37 CFR 1.136(a)).

The nucleotide and/or amino acid sequence disclosure contained in this application does not comply with the requirements for such a disclosure as set forth in 37 C.F.R. 1.821 - 1.825 for the following reason(s):

- ☒ 1. This application clearly fails to comply with the requirements of 37 C.F.R. 1.821-1.825. Applicant's attention is directed to the final rulemaking notice published at 55 FR 18230 (May 1, 1990), and 1114 OG 29 (May 15, 1990). If the effective filing date is on or after July 1, 1998, see the final rulemaking notice published at 63 FR 29620 (June 1, 1998) and 1211 OG 82 (June 23, 1998).
- ☒ 2. This application does not contain, as a separate part of the disclosure on paper copy, a "Sequence Listing" as required by 37 C.F.R. 1.821(c).
- ☒ 3. A copy of the "Sequence Listing" in computer readable form has not been submitted as required by 37 C.F.R. 1.821(e).
- ☐ 4. A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 C.F.R. 1.822 and/or 1.823, as indicated on the attached copy of the marked -up "Raw Sequence Listing."
- ☐ 5. The computer readable form that has been filed with this application has been found to be damaged and/or unreadable as indicated on the attached CRF Diskette Problem Report. A Substitute computer readable form must be submitted as required by 37 C.F.R. 1.825(d).
- ☐ 6. The paper copy of the "Sequence Listing" is not the same as the computer readable form of the "Sequence Listing" as required by 37 C.F.R. 1.821(e).
- ☒ 7. Other: Please refer to the attached Office action, "Sequence Compliance" section.

Applicant Must Provide:

- ☒ An initial or substitute computer readable form (CRF) copy of the "Sequence Listing".
- ☒ An initial or substitute paper copy of the "Sequence Listing", **as well as an amendment specifically directing its entry into the application.**
- ☒ A statement that the content of the paper and computer readable copies are the same and, where applicable, include no new matter, as required by 37 C.F.R. 1.821(e) or 1.821(f) or 1.821(g) or 1.825(b) or 1.825(d).

For questions regarding compliance to these requirements, please contact:

For Rules Interpretation, call (571) 272-2510
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